

**The Reform of the Intergovernmental Transfer System to Achieve a  
Harmonious Society and a Level Playing Field for Regional  
Development in China**

**By**

**Anwar Shah and Chunli Shen , World Bank<sup>1</sup>**

World Bank Policy Research Working Paper 4100, December 2006

*The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent. Policy Research Working Papers are available online at <http://econ.worldbank.org>.*

---

<sup>1</sup> The authors are Program Leader, Public Sector Governance and consultant, World Bank respectively. They are grateful to Professor Baoyun Qiao, Shanghai University for comments and inputs. Please address all comments to Anwar Shah (ashah@worldbank.org).

*标本兼治 “Get at the root of the problem while solving current issues.”*

*Chinese Proverb*

## **Introduction**

Central-provincial and provincial-local fiscal transfers are the dominant source of revenues of provincial and local governments in China. In 2003, they financed 67 percent of provincial, 57 percent of prefecture and 66 percent of country and lower level expenditures (Qiao and Shah, 2006). In China, most of the service delivery responsibilities are assigned to the subnational governments. Yet, for reasons of efficiency in tax collection and administration the central government collects revenues far in excess of its expenditure needs. In 2003, the central government collected 70 percent of consolidated revenues but accounted for only 30 percent of consolidated expenditures. The initial fiscal surplus of the central government enables it to use its spending power to provide financing to subnational jurisdictions for the achievement of national objectives and to influence local priorities. This paper examines the incentives associated with the design of such transfers and their implications for the efficiency and equity of public service provision and accountable local governance in China. The paper is organized as follows. Section 1 presents an overview of the structure of central-provincial fiscal transfers. Section 2 provides a summary of the existing provincial-local transfers. Section 3 examines the economic impact of these programs empirically. Section 4 highlights conceptual and practical design considerations in designing fiscal transfers. Section 5 presents a review of the existing structure of intergovernmental transfers. Section 6 identifies principal issues for an agenda for restructuring. Finally, section 7 presents some ideas on possible options for a reform of the existing system of fiscal transfers to further national objectives.

## **1. The Existing System of Central-Provincial Transfers**

The fiscal system in China is based upon a layer cake model where there is a strict vertical hierarchical relationship among different orders of government. Therefore, the

central government only determines transfers to provincial level governments<sup>2</sup> and there are no direct central grants to prefecture, county, or township governments. It is worth mentioning that county governments get transfers directly from provincial-level governments in seven provinces (Anhui, Fujian, Heilongjiang, Hainan, Hubei, Ningxia, and Zhejiang) and four metropolitan areas (Beijing, Shanghai, Tianjin, and Chongqing) as well as in the five separately planned cities where the “province managing county” model has been implemented by the year 2005 (see Figure 1). The sub-provincial transfer design is similar to that of central transfers to provincial governments, though the grant composition varies significantly across provinces due to the diversity of regional fiscal resources.

Central transfers in China can be classified into two broad categories: general purpose and specific purpose transfers. The general purpose transfers consist of (a) revenue-sharing transfers (b) the tax rebate designed to return a fraction of revenues by origin (province of collection), and (c) the equalization transfer established in 1995 in an effort to ease the widening regional disparities. The equalization transfer was called “transitory period grant” until 2001 and then renamed “the general-purpose grant” since 2002. These three transfers constituted 63.8 percent of total central transfers in 2004. The equalization grant has grown rapidly in size from only 2.07 billion yuan in its initial year to 74.5 billion yuan in 2004. Specific purpose transfers include (a) grants for increasing wages (b) grants for rural tax reform (c) grants for minority regions (d) prio-1994 subsidies (e) other ad hoc transfers. About 200 plus ad hoc grants, termed the earmarked grants (*Zhuanxiang Zhuanyi Zhifu*) by the Ministry of Finance, China, are used to subsidize a wide variety of spending projects such as capital constructions and social relief for calamities. In 2004, the largest central-provincial fiscal transfer was the revenue sharing transfers (469.5 billion yuan), followed by the tax rebate (404.97 billion yuan) and earmarked grants (322.33 billion). These three transfers combined accounted for more than 80 percent of the total central-provincial transfers. The 2004 equalization transfer was 74.50 billion yuan, amounting to 5 percent of the total central-provincial transfers (see Table 1).

---

<sup>2</sup> The five separately planned cities, Dalian, Qingdao, Shenzhen, Xiamen, and Ningbo, are treated as provincial governments fiscally

**Figure 1 The Intergovernmental Grant Flow in China (2006)**

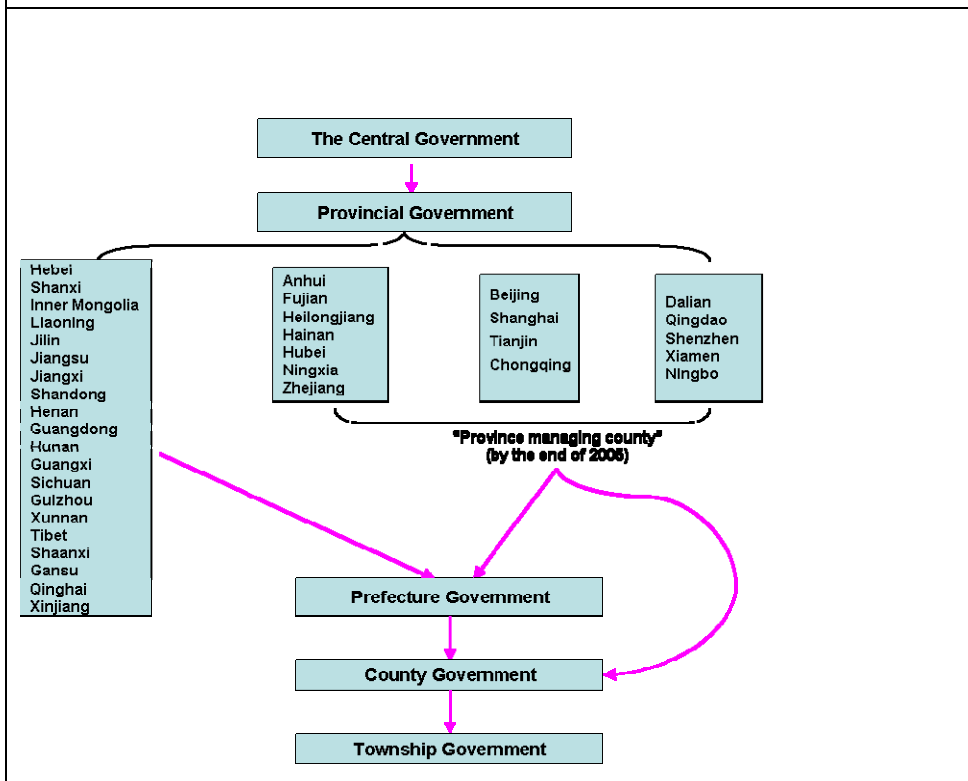
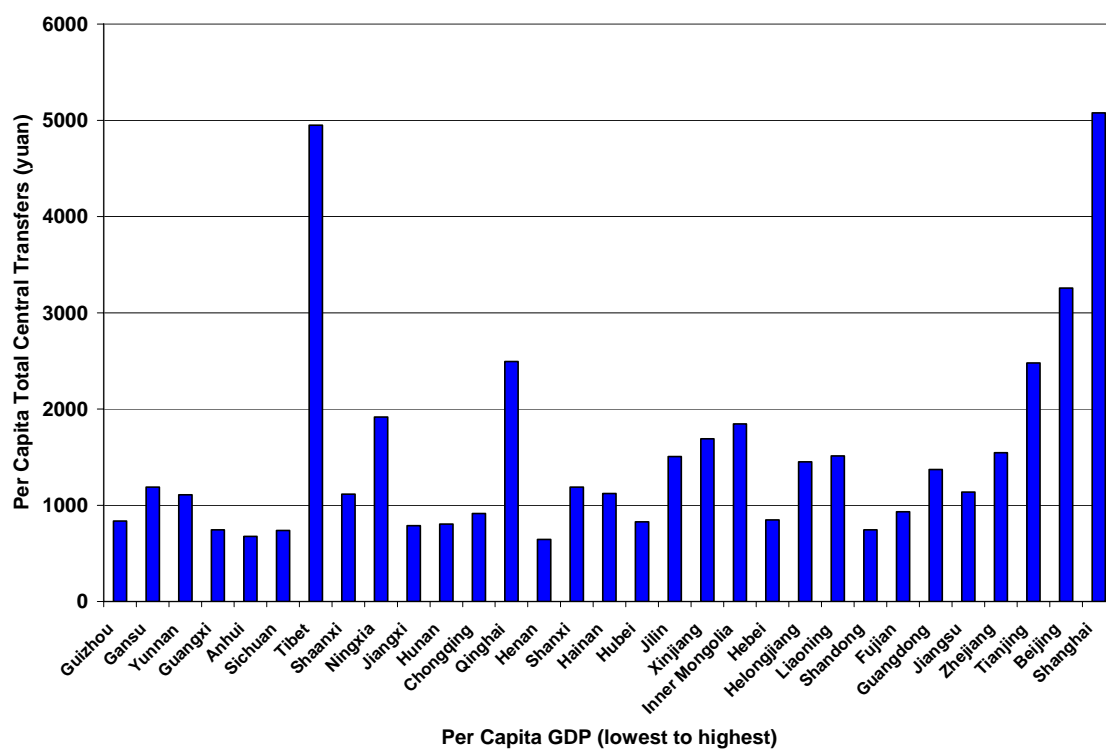


Table 2 (see also Figure 2) presents an overview of various transfer programs in 2004<sup>3</sup>. For the total central transfers, Shanghai, the richest province, was the highest per capita recipient province (5,079 yuan) and Henan the lowest (646 yuan) with the national average of 1117 yuan per capita. When it comes to revenue sharing transfers, Shanghai obtained the national highest per capita transfers of 2,830 yuan; Hainan received the lowest within the eastern region (179 yuan); Shanxi and Xinjiang were the highest recipients in the central and western regions respectively; and Tibet received the lowest in the western China and also in the nation. As for the tax rebate, Shanghai, Jilin, and Yunnan received the largest amount in the eastern, central, and western China respectively. For obvious reasons, the six coastal provinces – Beijing, Guangdong, Jiangsu, Shanghai, Tianjin, and Zhejiang did not receive any equalization transfers. Tibet received the highest per capita equalization transfer of 705 yuan.

<sup>3</sup> Eastern China includes 11 provinces: Beijing, Fujian, Guangdong, Hainan, Hebei, Jiangsu, Liaoning, Shandong, Shanghai, Tianjin, and Zhejiang; Central China consists of 8 provinces: Anhui, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Jilin, and Shanxi; and the rest 12 provinces belong to Western China.

**Figure 2 Distribution of Total Central Transfers - Per Capita by Province - 2004**



The total central transfers also include revenue sharing transfers that are 25% of VAT and 40% of Personal and Enterprise Income Taxes in each province.

Authors' own calculation.

**Table 1 Intergovernmental Transfers in China**

	Central-Provincial				Provincial-Prefecture		Provincial/Prefecture-County <sup>1</sup>	
	2004		2003		2003		2003	
	Amount (billion yuan)	Percentage of Total Transfers	Amount (billion yuan)	Percentage of Total Transfers	Amount (billion yuan)	Percentage of Total Transfers	Amount (billion yuan)	Percentage of Total Transfers
<b>General Purpose Transfers</b>								
Revenue Sharing Transfers <sup>2</sup>	469.5	31.6	355.6	30.6	231.0	28.8	111.4	20.6
Tax Rebate	405.0	27.2	342.4	29.5	166.7	20.8	126.2	23.3
Equalization Transfer <sup>3</sup>	74.5	5.0	38.0	3.3	39.6	4.9	30.5	5.6
Subtotal	949.0	63.8						
<b>Specific Purpose Transfers</b>								
Grants for Increasing Wages	91.9	6.2	89.9	7.7	79.2	9.9	68.5	12.7
Grants for Rural Tax Reform	52.3	3.5	30.5	2.6	33.0	4.1	33.8	6.3
Grants for Minority Regions	7.7	0.5	5.8	0.5	1.7	0.2	1.7	0.3
Prio-1994 Subsidies	12.6	0.8	12.4	1.1	18.2	2.3	16.5	3.0
Ad Hoc Transfers <sup>4</sup>	322.3	21.7	242.6	20.9	149.3	18.6	98.2	18.1
Others <sup>5</sup>	51.4	3.5	43.7	3.8	84.2	10.4	54.4	10.1
Subtotal	538.2	36.2						
<b>Total</b>	1487.2	100.0	1160.8	100.0	802.7	100.0	541.2	100.0
Percentage of Local Expenditure				67		57		66
Notes:								
1. Whether counties get transfers from provincial or prefectural level government is dependent upon whether the province has implemented “province managing county” reform.								
2. Revenue sharing transfers from 2002 include the following shared taxes: VAT, Enterprise Income Tax, and Personal Income Tax; before 2002, the revenue sharing transfers only reflected the amount of local VAT revenue.								
3. The Equalization Transfer refers to the Transitory Period Grant established since 1995.								
4. Ad Hoc Transfers refer to the earmarked grants ( <i>Zhuanxiang Zhuanyi Zhifu</i> ) as categorized in the MOF dataset.								
5. Others include various accounting closing transfers, civil service unit reform subsidies, and the non-categorized transfers in the MOF dataset.								

Table 2 A Regional Perspective on China's Central Transfers (2004)												
											Unit: per capita yuan	
	Nation-wide			Eastern PRC			Central PRC			Western PRC		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
GDP per capita	4,078 (Guizhou)	42,768 (Shanghai)	12,614	9,405 (Hainan)	42,768 (Shanghai)	19,351	7,449 (Anhui)	13,893 (Heilongjiang)	9,376	4,078 (Guizhou)	11,376 (Inner Mongolia)	7,430
General Purpose Transfers:												
Revenue Sharing Transfers	81 (Tibet)	2,830 (Shanghai)	330	179 (Hainan)	2,830 (Shanghai)	610	119 (Jiangxi)	324 (Shanxi)	164	81 (Tibet)	237 (Xinjiang)	152
Tax Rebate	126 (Jiangxi)	2,123 (Shanghai)	313	172 (Hainan)	2,123 (Shanghai)	523	126 (Jiangxi)	276 (Jilin)	175	139 (Guizhou)	359 (Yunnan)	194
The Equalization Transfer	0 (Beijing, Guangdong, Jiangsu, Shanghai, Tianjin, Zhejiang)	705 (Tibet)	3	0	108 (Hainan)	14	54 (Henan)	125 (Jilin)	71	41 (Yunnan)	705 (Tibet)	100
Specific Purpose Transfers:												
Ad Hoc Transfers	31 (Guangdong)	1,657 (Tibet)	249	31 (Guangdong)	413 (Liaoning)	127	166 (Henan)	612 (Jilin)	288	180 (Guangxi)	1,657 (Tibet)	366
Total Central Transfers	646 (Henan)	5,079 (Shanghai)	1117	745 (Shandong)	5,079 (Shanghai)	1,352	646 (Henan)	1,506 (Jilin)	883	739 (Sichuan)	4,950 (Tibet)	1075
The total central transfers also include revenue sharing transfers that are 25 percent of VAT and 40 percent of personal and enterprise incomes taxes in each province. Authors' own calculation												

## General Purpose Transfers

### (a) The Revenue Sharing Transfers

Sub-national governments in China receive 25 percent of the proceeds of the value-added tax (VAT) and 40 percent of the enterprise income taxes and the personal income tax from the central government. Since the central government determines the tax base, tax rate, and collects VAT and most of income taxes, they are more suitably classified as general purpose transfers following the general convention in the public finance literature.

### (b) The Tax Rebate

With the 1994 tax reform, VAT and excise taxes were brought under central tax administration and a program of tax rebates were instituted for VAT and excise taxes in 1994 which returned a fraction of these revenues to the province of origin. The provinces were assured that under centralized collection, each province would receive at the minimum the VAT and excise tax revenues it retained in 1993. For VAT and excise taxes, they have also been assured that their current rebates would total last year's rebate plus 30% of the growth in VAT and consumption tax revenues (Budget Committee 2002). Algebraically,

$$TR_t = TR_{t-1} [1 + 0.3 \left( \frac{VAT_t - VAT_{t-1} + ET_t - ET_{t-1}}{VAT_{t-1} + ET_{t-1}} \right)]$$

Where:

$TR_t$  - tax rebate to a province at year t

VAT – value-added tax

ET – Excise taxes (*Xiaofei Shui*)

In 2002, Personal Income Tax and Enterprise Income Tax were also brought under the central tax administration and a program of tax rebate similar to VAT tax rebate was instituted. Effective on January 1, 2002, all income taxes from enterprises<sup>4</sup> and personal

---

<sup>4</sup> The income tax from the following enterprises is excluded from the sharing policy: rail transportation, state post office, Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China,



income were shared by the central government and provincial governments at the ratio of 50 to 50. Since 2003, the central share has been raised to 60 percent. To assure stability in provincial revenues, income tax rebate program to instituted to ensure that all provinces received income tax revenues no less than what they received in 2001.

### **(c) The Equalization Transfer**

In 1995, the equalization grant, the first formula based transfer (the so-called transitory period grant until 2001) was established with a view to reducing regional fiscal disparities. The amount of the equalization transfer for a province  $i$  is determined by three factors: standard revenue of the province, standard expenditure of the province, and the share of the provincial standard fiscal gap of the total fiscal gap. Algebraically,

$$ET_i = TET * \frac{SE_i - SR_i}{SE - SR}$$

Where

$ET_i$  -- the equalization transfer for province  $i$

TET – total equalization grant available in the budget year

$SE_i$  – standard expenditure of province  $i$

$SR_i$  – standard revenue of province  $i$

SE – total standard expenditure of the country

SR – total standard revenue of the country

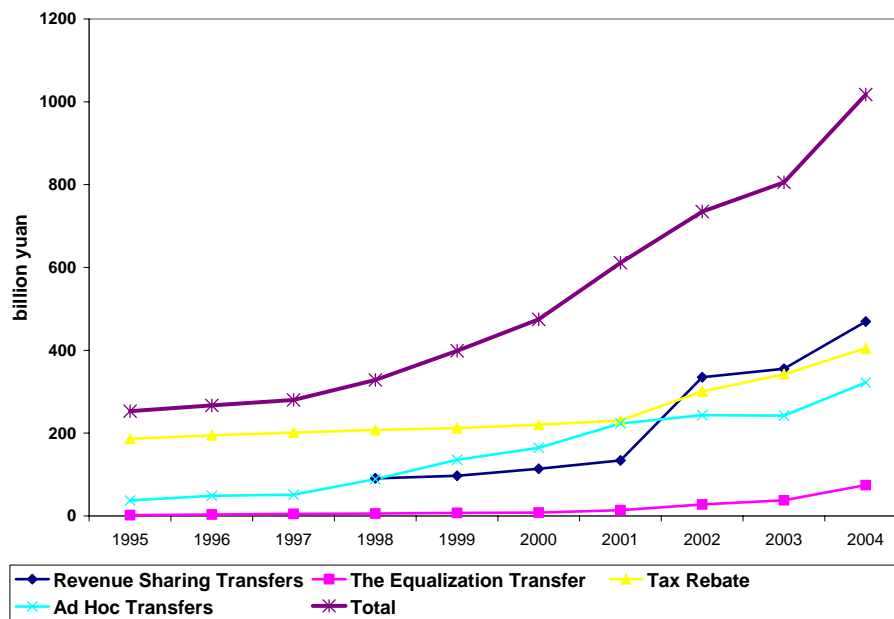
The size of the pool for the equalization transfer (TET) is determined by the central government on an ad-hoc basis, subject to annual funding availability.

The standard revenues are equal to standard local own and shared taxes plus tax rebate plus various grants subtracted by remittances to the central government. In the formula, tax rebate, various grants, and remittances to the central government are actual amounts paid by the central government. For each type of tax, standard tax revenue is determined by multiplying the standard tax base with the standard tax rate. For personal

income tax, the standard tax base includes salaries and income of private industrial and commercial enterprises. The actual income tax collection from other bases is regarded as the standard revenue. The income tax base of salaries is estimated using per capita taxable salaries net of exemptions and number of employees. The tax rate of salaries is local average effective tax rate, adjusted with a regional coefficient. The standard expenditures are measured as the total spending of seven sectors and for each sector the standard spending cover personal expenditure (salaries and bonus) and office expenditures (vehicles, heating, and others).

Although the equalization grant has been growing rapidly (2.07 billion yuan in 1995 to 74.5 billion yuan in 2004), growth in specific purpose transfers has outpaced the growth of equalization transfers. Figure 3 depicts the trend of funds allocation for the revenue sharing transfer, the equalization transfer, tax rebate, the ad hoc transfers, and the total transfers for the period of 1995 to 2004.

**Figure 3 Central-provincial Transfers, 1995-2004**



1. The revenue sharing transfers are only dated to 1998 due to data availability; 2. The ad hoc transfers, called the earmarked grants by the Ministry of Finance, account for major portion of the specific purpose transfers.

## Specific Purpose Transfers

### *(a) Grants for Increasing Wages of Civil Servants*

When the center raised the wage rate for public sector employees in 1999 and 2001, a special grant was established in 1999 to support the implementation of this policy in western and central regions. Thus the purpose of this transfer is to fill the fiscal gap caused by the central policy mandate. The wage rate was first increased by an amount of monthly 120 yuan per capita on July 1, 1999, then further raised at a rate of monthly 100 yuan per capita on January 1, 2001, and on October 1, 2001, additional 80 yuan per capita per month was added. The wage increase was also accompanied by the construction of a bonus system for civil servants from 2001 (equivalent to an approximate increase of one month of wages) and by the establishment of a subsidy system for remote areas. More than 700 counties were eligible to receive this grant. Provinces faced with difficulties of paying teachers' wages in rural elementary and middle schools are also compensated by this transfer (Zhang 2003).

The grant allocation can be characterized as:

$$WageGrant_i = ExpIncrease_i * BasicExpenditureRatio_i$$

Where

WageGrant – the grant for increasing wages received by province  $i$

ExpIncrease – the increase of provincial budgetary expenditure due to central policy of increasing wages

BasicExpenditureRatio – the ratio of the personal and office expenses to the total disposable revenue of the province  $i$

According to the formula, the volume of the grant received by province  $i$  is dependent upon the provincial expenditure increase due to the wage policy and the share of basic expenditure (including personnel and office expenses) in the total disposable revenue of the province. The increased expenditure is determined by the number of civil servants in province  $i$  and the standard of wage increase by the central government. The total transfer in 2004 amounted to 91.94 billion yuan.

***(b) Grants for Rural Tax Reform***

The transfer was created in 2000 to foster the implementation of the central policy to rescind “three village deductions and five township charges” (*xiangtongchou he cun tiliu*) and gradually abolish agricultural taxes. The “three deductions” collected by villages are: collective investment, public welfare funds, and cadre compensation. The “five charges” include charges for rural education, family planning, militia training, rural road construction and maintenance, and subsidies to entitled groups levied by townships. This transfer is aimed at filling the fiscal gap caused by the rural tax reform. In 2004, the total of 52.33 billion yuan was transferred to provincial governments.

***(c) Grants for Minority Regions***

The grant for minority regions was established in 2000 in order to support economic development in minority regions which are usually backward in their economic performance. The total grant equals a base amount of 1 billion yuan in 2000 with a yearly growth rate equal to that of central VAT revenue, and the rebate of the 80 percent of the central increased VAT collection in minority areas. This transfer has risen to 7.69 billion yuan in 2004.

***(d) Prio-1994 Grandfathered Subsidies***

Prio-1994 subsidies are the contracted fixed grants under the “Fiscal Contracting System” during the period 1988-1993. The total of the grant was 12.6 billion yuan in both 2003 and 2004. Since 1994, local governments have continued to remit revenues to or receive transfers from the centre according to their fiscal contracts in effect in 1993. The amount of transfers is approximately equal to the estimated deficit (gap between revenue and expenditure) measured in the base year. Sixteen provinces, including Inner Mongolia, Jilin, Fujian, Jiangxi, Shandong, Guangxi, Hainan, Sichuan, Guizhou, Yunnan, Tibet, Shannxi, Gansu, Qinghai, Ningxia, and Xinjiang, still receive this type of grant.

***(e) Ad hoc transfers***

The ad hoc transfers are categorized as “earmarked grants” by the Ministry of Finance. Various ad hoc transfers to finance various programs have grown over time in number

and size. Currently there are about 200 programs accounting for more than 20 percent of total central transfers (see Figure 3). These transfers are program-based and allocated for specific purposes such as subsidizing agricultural development, supporting infrastructure construction, assisting backward regions, and providing emergency funding for natural catastrophes. This transfer has risen to 322.3 billion yuan in 2004.

## **2. The Existing Structure of Provincial-Local Fiscal Transfers**

All central transfers in China intended for sub-provincial levels pass through the provincial governments. It therefore matters how provinces manage their relationships with lower orders of government. Currently these relationships are guided by two alternate models.

(a) *“Prefecture Managing County” model.* This is a traditional model still practiced in twenty provinces as the end of year 2005. In this model, provincial governments only deal with prefecture governments on fiscal matters and prefecture governments in turn deal with county governments.

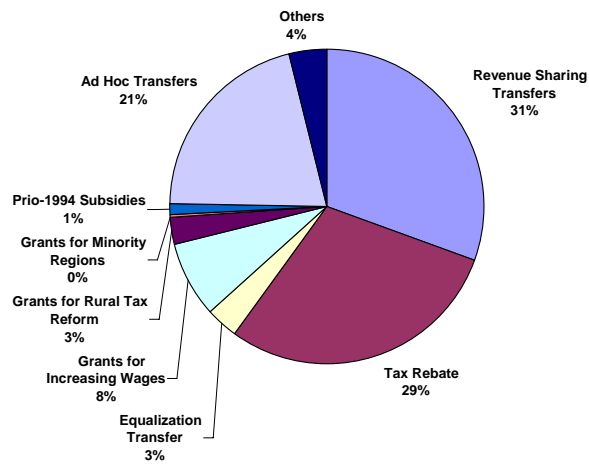
(b) *“Province Managing County” model.* Some provincial government by-pass the prefecture level and directly relate with county governments on fiscal matters. The fiscal connection between the prefecture and the county is entirely removed. The model has been implemented in eleven provincial-level governments (Anhui, Fujian, Heilongjiang, Hainan, Hubei, Ningxia, Zhejiang, and four metropolitan areas Beijing, Shanghai, Tianjin, and Chongqing) and five separately planned cities (Dalian, Ningbo, Qingdao, Shenzhen, and Xiamen) at the end of 2005.

The “province managing county” model is receiving substantial popularity in the country right now, and it is expected that more provincial governments will adopt it in the near future. Further down the bureaucratic level, county governments provide transfers to the township governments in most cases. For some poor jurisdictions, central government encourages a “county replacing township” model in which the township government no longer acts as an independent budget unit. It is hoped that government efficiency can be improved with less managerial layers.

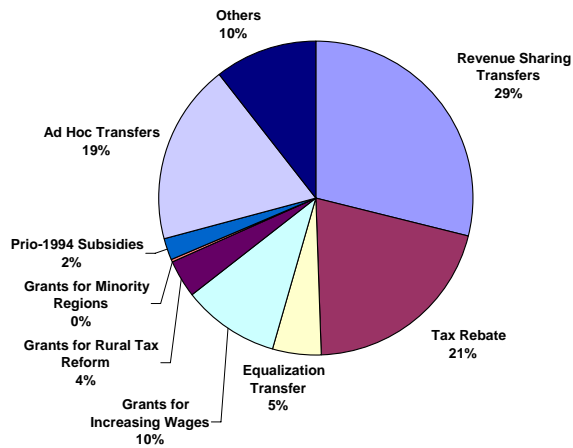
The sub-provincial transfers, congruent with the structure and allocation criteria of central transfers, can be similarly divided into two major categories: the general purpose grants and the specific purpose grants. The general purpose grants include revenue sharing transfers, tax rebate, and the equalization transfer. The specific purpose transfers consist of grants for increasing wages, grants for rural tax reform, grants for minority regions, prio-1994 subsidies, and ad hoc transfers. The equalization transfer and the tax rebate are regulated by the center and calculated by identical formulas at sub-national levels. The composition of intergovernmental transfers at the provincial, prefecture, and county levels is shown in Figure 4. Table 1 shows pass through of these transfers. Of the total amount of transfers received from the center, provincial government retained 29.20% and passed 70.8% to prefectures. Prefectures in return passed 75.4% to county governments.

**Figure 4 Comparison of the Transfer Composition at Different Level of Government in China, 2003**

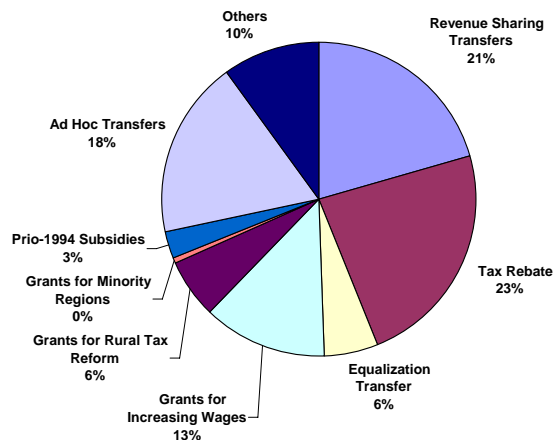
**Central – Provincial (Total: 1160.8 billion yuan)**



**Provincial – Prefecture (Total: 802.7 billion yuan)**



**Provincial/Prefecture – County (Total 541.2 billion yuan)**



### **3. The Empirical Impact of Existing System of Fiscal Transfers**

The empirical impact of the existing system of transfers can shed light on the achievement of their objectives in practice. In the following paragraphs, we primarily examine the equalization impacts of major transfer programs.

#### ***The Equalization Transfer***

Table 3 reports the correlation between per-capita equalization transfer and available indices of fiscal capacity and needs by province. Per capita transfers show a negative correlation with provincial gross domestic product and per capita provincial revenues. Per capita transfers are positively correlated with per capita provincial expenditures and provincial unemployment rate. But the correlation is mild as reflected by the relatively low value of the indicator. A clear visual presentation is provided by the followed charts which depict how the per capita equalization transfer is related to the selected economic variables respectively. The Gini coefficients of inequality reported in Table 4 suggest that the grant has a mildly equalizing impact on provincial revenues (the Gini is slightly reduced from 0.365 to 0.351). The weak equalization effect can be mainly attributed to the small pool of the grant – the grant only accounted for 7.3 percent of the total central transfers and the national per capita receipt of the grant was about 3 yuan. Thus, the grant's redistributive impact is insignificant.

#### ***Specific Purpose Transfers***

The various specific purpose grants include grants for minority regions, grants for poor remote regions, grants for increasing wages, grants for rural tax reform, prio-1994 subsidies, and others. Grant allocations show a negative correlation with per capita provincial gross domestic product, and per capita provincial revenues (Table 3). Taking this type of grant into consideration, the Gini coefficient for provincial revenues is reduced from 0.365 to 0.295 (see Table 4). Thus, the grants also have an equalizing impact on provincial revenues.



**Table 3: Various Transfers in Relation to Economic Indicators in China, 2004**

Correlation Coefficient between and: (provincial governments N=31)	Per Capita Equalization Transfers	Per Capita ad hoc Transfers	Per Capita Specific Purpose Transfers
a) Per Capita Provincial Gross Domestic Product	-0.38	-0.36	-0.28
b) Per Capita Provincial Revenues	-0.31	-0.28	-0.22
c) Per Capita Provincial Expenditures	0.18	0.20	0.27
d) Provincial Unemployment Rate	0.10		
Data for provincial gross domestic product, provincial population, provincial revenues, provincial expenditures, and provincial unemployment are from <i>China Statistical Yearbook 2005</i> .			

**Table 4: The Equalization Impact of Central Transfers in China, 2004**

Provincial Governments (N=31)	Mean (per capita yuan)	Weighted Gini Index
Provincial Revenues	904	0.365
+ The Equalization Grant	906	0.351
+ Ad Hoc Grants	1153	0.283
+ Specific Purpose Transfers	1070	0.295
Notes: The weighted Gini index, which weights each difference of per capita revenue by respective population is calculated as showed below:		
$G = \left( \frac{1}{2\bar{R}} \right) \sum_i^n \sum_j^n  R_i - R_j  \frac{p_i p_j}{p^2}$		
$\bar{R}$ is the national mean. $p_i$ and $p_j$ are the population of province i and j respectively. P is the national population, and n is the number of provinces. G varies from 0 for perfect equality to $(1 - \frac{p_i}{p})$ for perfect inequality.		

### ***Other Ad Hoc Grants***

Looking at the relation between the ad hoc grants and selected economic indicators, we find that in general the grants bear a negative correlation with per capita provincial gross domestic product, and per capita provincial revenues (Table 3). Further, Gini coefficients of inequality reported in Table 4 suggest that the grants have an equalizing impact on

provincial revenues. The Gini index is reduced from 0.365 to 0.283 after adding the grants to per capita provincial revenues. Surprisingly, the equalizing effect of the earmarked grants is even stronger than the equalization transfer. It may be partly because the per capita equalizing transfer is very small, only about one percent of the per capita earmarked grants. While the program appears to promote provincial equity in a limited sense, the grant design does not score well on most criteria such as transparency, predictability, simplicity and objectivity.

#### **4. Designing Fiscal Transfers for a Harmonious Society and Balanced Regional Development: Conceptual and Practical Considerations**

##### ***(a) Economic Rationale for Intergovernmental Fiscal Transfers***

The intergovernmental transfers are the dominant source of revenues for subnational governments in China. The design of these transfers is of critical importance for efficiency and equity of local service provision and fiscal health of subnational governments. For enhancing accountability, it is desirable to match revenue means (the ability to raise revenues from own sources) as closely as possible with expenditure needs for all orders of government. However, higher level governments must be allowed greater access to revenues than needed to fulfill own direct service responsibilities so that they are able to use their spending power through fiscal transfers to fulfill national and regional efficiency and equity objectives. We can identify six broad objectives for national fiscal transfers each of which may apply to varying degree in China and each of which calls for a specific design of fiscal transfers (see Table 5).

**Table 5: Principles and better practices in grant design**

<i>Grant Objective</i>	<i>Grant Design</i>	<i>Better Practices</i>	<i>Practices to avoid</i>
To bridge fiscal gap	<ul style="list-style-type: none"> <li>• Reassign responsibilities</li> <li>• Tax abatement</li> <li>• Tax base sharing</li> </ul>	Tax abatement and tax base sharing in Canada	Deficit grants Tax by tax sharing
To reduce regional fiscal disparities	General Non-matching Fiscal capacity equalization transfers	Fiscal equalization programs of Canada and Germany	General revenue sharing with multiple factors
To compensate for benefit spillovers	Open-ended matching transfers with matching rate consistent with spill-out of benefits	Republic of South Africa grant for teaching hospitals	
Setting national minimum standards	Conditional non-matching block transfers with conditions on standards of service and access	Indonesia pre-2000 roads and primary education grants Colombia and Chile education transfers, Canada Health transfers , SUDS program in Brazil	Conditional transfers with conditions on spending alone <i>ad hoc</i> grants
Influencing local priorities in areas of high national but low local priority	Open-ended matching transfers (with preferably matching rate to vary inversely with fiscal capacity)	Matching transfers for social assistance as in Canada	<i>ad hoc</i> grants
Stabilization	Capital grants provided maintenance possible	Limit use of capital grants and encourage private sector participation by providing political and policy risk guarantee	Stabilization grants with no future upkeep requirements

*Source:* Shah (1994, 1998, 2004, 2005).

***(b) Criteria for the design of intergovernmental fiscal transfers***

Beyond the economic rationale which argues for consistency of grant design with objectives, a number of principles should be considered while designing individual grant programs (Shah, 1994).

*Autonomy.* Subnational governments should have complete independence and flexibility in setting priorities, and should not be constrained by the categorical structure of programs and uncertainty associated with decisionmaking at the center. Tax base sharing – allowing subnational governments to introduce their own tax rates on central bases, formula-based revenue sharing, or block grants – is consistent with this objective.

*Revenue Adequacy.* Subnational governments should have adequate revenues to discharge designated responsibilities.

*Equity.* Allocated funds should vary directly with fiscal need factors and inversely with the taxable capacity of each jurisdiction (see Shah 1996 for an application).

*Predictability.* The grant mechanism should ensure predictability of subnational governments' shares by publishing five-year projections of funding availability.

*Efficiency.* The grant design should be neutral with respect to subnational government choices of resource allocation to different sectors or different types of activity.

*Simplicity.* Grant allocation should be based on objective factors over which individual units have little control. The formula should be easy to comprehend so that grantsmanship is not rewarded.

*Incentives.* The design should provide incentives for sound fiscal management and discourage inefficient practices. There should be no specific transfers to finance subnational government deficits.

*Safeguard of grantor's objectives – accountability for results.* This is best done by having grant conditions specify results to be achieved and giving the recipient flexibility in the use of funds but holding the recipient accountable for results.

*Singular focus.* Each grant should be focused on a single objective.

The various criteria specified above could be in conflict with each other and therefore a grantor may have to assign priorities to various factors in comparing design alternatives.

***(c) Lessons from International Practices***

Shah (2003) provides a number of important lessons from worldwide practices in intergovernmental transfers. These are reported here in verbatim to inform our review of the China's fiscal system.

***Negative Lessons: Practices to Avoid***

1. To deal with vertical fiscal gap, general revenue sharing programs with multiple factors are to be avoided as they undermine accountability and do not advance fiscal efficiency or fiscal equity objectives. Tax by tax revenue sharing should also be avoided due to its possible perverse incentives for the donor tax administration. Tax decentralization or tax base sharing offer better alternatives to a general revenue sharing program as they enhance accountability while preserving subnational autonomy.
2. Grants to finance subnational deficits should be avoided as they create incentives for running higher deficits in future.
3. Avoid fiscal effort provisions in unconditional grant programs. Improving service delivery while lowering tax costs should be public sector objectives.
4. Input or process based or adhoc conditional grant programs undermine local autonomy, flexibility and fiscal efficiency and fiscal equity objectives.
5. Capital grants without assurance of funds for future upkeep should be avoided as they have the potential to create white elephants
6. Negotiated and/or discretionary transfers in general should be avoided in a decentralized fiscal system as these may create dissention and disunity.
7. Avoid setting up independent grant commissions/agencies outside the government. These agencies typically opt for complex solutions.

*Positive Lessons: Practices to Strive for.*

1. Keep it simple. In the design of fiscal transfers, rough justice may be better than full justice to keep the system simple and transparent so as to have wider acceptability.
2. Focus on a single objective only in one grant program and make the design consistent with this objective. Having multiple objectives in a grant program runs the risk of not achieving any one of those objectives.
3. Introduce sunset clauses. It is desirable to have the grant program reviewed periodically say every five years and renewed. In the intervening years, there should not be any changes in the program to provide certainty in budgetary programming for all governments.
4. Fiscal equalization is best achieved through a grant program that equalizes per capita fiscal capacity to a specified standard. Calculations required for fiscal capacity equalization using a representative tax system is a relatively straight forward and less data intensive and less demanding exercise. Expenditure need equalization, while desirable, on the other hand, requires difficult and complex and often subjective analysis inviting much controversy and debate. Fiscal need equalization is better achieved through output based per capita (per service population) national minimum standards grants.
5. In specific purpose grant programs, conditionality is best imposed on outputs or standards of access and quality of services rather than on inputs and processes. This facilitates the achievement of grantor's objectives without undermining local choices on how best to deliver such services. Simple output based transfers can facilitate the achievement of national minimum standards.
6. There is no single model of institutional arrangements that is superior to others but it is important that all stakeholders are heard and appropriate compromise using objective criterion is struck acceptable to all. A national consensus on the standard of equalization is critically important for the

sustainability of the program. Intergovernmental forums have worked well in several countries such as Canada and Germany.

## **5. A Review of the Existing Structure of Intergovernmental Transfers in China**

In the following, individual grant programs are reviewed and then general conclusions are drawn regarding the overall system of intergovernmental transfers in China.

### **The General Purpose Transfers**

#### ***Revenue Sharing Transfers (tax sharing program)***

The VAT and personal and enterprise income taxes (PIT & EIT) were brought under central government administration in 1994 and 2002 respectively and a tax by tax sharing system was introduced under which at the present time 25% of VAT and 40% of PIT and EIT revenues are returned by origin to the provinces. The centralized administration of these taxes assured a common base and uniform taxation across the country. This feature is particularly desirable for VAT administration. For residence based personal income taxes and residence based enterprise income taxes, uniformity of base is desirable but uniformity of tax rates can be foregone in the interest of greater provincial autonomy and flexibility. While residence based personal income taxes are desirable the enterprise income taxes must be source based and should have formal income attribution rules to attribute income to various locations. The residence based enterprise taxes have the potential to deprive poor provinces of significant revenues as company headquarters are usually located in richer provinces. In addition residence based enterprise taxes have the potential to encourage wasteful tax competition and beggar-thy-neighbor policies. The existing system of tax by tax sharing weakens provincial flexibility and accountability as provincial governments no longer have the ability to vary the tax rates and to justify taxing choices to provincial residents. The tax by tax sharing feature of the existing arrangements is also not desirable, as conceptually, it may create incentives for central administration to make greater effort at the margin from raising revenues from bases that are not shared. In China, however, there is no evidence yet that such effect is operative.



### ***The Tax Rebate Transfer***

As noted earlier the tax rebate program was instituted to assure provinces that centralization of tax administration would not have adverse consequences for their revenues. The program assured that provinces should expect to receive at least the same revenues they received from VAT in 1994 and the PIT and CIT in 2001. This is a static guarantee with built in tendency to terminate itself after a few years. However, for VAT, a dynamic element was introduced by allowing last year's rebate entitlement to be augmented by 30% of growth in VAT revenues. This rebate is difficult to justify beyond the initial "hold harmless" provisions. Some scholars have argued that the tax effort incentives provided by this grant reward richer provinces and contribute to widening fiscal disparities among regions (Tsui 2005).

### ***The Equalization Grant***

In large and diverse country with decentralized fiscal system, fiscal equalization program is considered a glue that may hold the country together. China, in 1995, with the objective of advancing regional fiscal equity and harmony, adopted an objective comprehensive equalization program patterned after the Australian model. The program attempts to equalize both the fiscal capacity and expenditure needs. While the program aspires to be an ideal program conceptually, in practice, it is highly complex in design and unlikely to achieve regional fiscal equity objectives due to a number of design flaws.

*Equalization standard.* China just like Australia adopted an ad hoc year to year variable fixed pool that is unrelated to a consensus equalization standard. A fixed pool negates commitment to having reasonably comparable levels of public services at reasonably comparable levels of fiscal burdens across the country.

*Implications of a centralized fiscal system for equalization.* The representative tax system is usually used to equalize to an explicitly defined standard, diverse revenue potential from local ownership and exploitation of tax bases under a decentralized fiscal system. China has a centralized fiscal system which limits the potency of a fiscal capacity equalization program. All major dynamic and productive tax bases are centralized. Like

Australia, provincial-local revenue base is small and unlike Australia, these governments do not have any autonomy in determining their own tax bases and rates. Further national tax bureaus provide administrative supervision over provincial-local tax bureaus.

*Representative tax system (RTS) approach to equalize fiscal capacity.* The RTS system is conceptually desirable but given the centralized fiscal system in China, application of a representative tax system approach to calculate potential yields complicates matters but unlikely to yield results variable from actual revenues. The variation will arise primarily from central tax collection agency performance on enforcement and compliance in various jurisdictions. Note that potential yields are calculated to avoid the unwelcome incentive/disincentive effects in terms of tax administration with the use of actual revenues in equalization grants. The Chinese fiscal system parallels the German fiscal system in that local governments in both countries simply implement central tax policies and have little or no discretion in defining own bases and own tax rates. The German equalization system realizes this difficulty and thereby while adopting the representative tax system equalizes actual revenues. This keeps the system simple.

*Representative Expenditure System (RES).* Just like Australia, China uses the RES for expenditure need calculations. China uses even a greater degree of rigor than Australia in making such calculations. While such calculations are conceptually desirable, in practice they are just like the Australian calculations have a number of serious limitations. Such calculations, for example, for personnel expenditures assume a straight jacket management paradigm and would implicitly discourage innovative practices that emphasize managing for results such as alternate service delivery frameworks that embody elements of competitive provision and outsourcing. They also internalize generous and wasteful expenditure policies in richer provinces. Similar concerns apply to other expenditure categories such as fuel expenditures etc. The econometric approach to RES assumes unchanging functions and modes of service delivery and stable coefficients – hardly plausible for a dynamic economy like China. Australia abandoned an econometric approach to RES in the 1990s for the same reasons. Even their current

approach to expenditure need calculations is highly complex and controversial and a major source of discontent with the current equalization program.

Overall, expenditure need equalization, while desirable, requires difficult and complex analysis inviting much controversy and debate. It also turns equalization into a black box for most people except a handful of hard core gurus. In view of this, fiscal need compensation is best achieved through output based transfers for merit goods.

In conclusion, China's fiscal equalization is highly complex but lacks the basic ingredient of a good equalization system, namely that there should be an explicit equalization standard on which there is a broad societal consensus and this agreed standard in turn should determine both the total pool as well as allocation to provinces that are to be brought up to the national average standard. Further such calculations should be based upon authentic data available to all and the overall system should be simple for a wider acceptance of the program.

### **Specific Purpose Transfers**

China has a large number of specific purpose transfers to further national priorities and to enable provinces to implement national mandates. A few better known programs are reviewed in the following paragraphs.

#### ***Grants for Increasing Wages of Civil Servants***

This grant compensated provincial-local governments for centrally mandated wage increases during 1999-2001. This program made sense for the year it was instituted but rationale for maintaining this program in the long run is not clear. The program represents a tacit admission on the part of the central government that existing tax assignment and transfers are not commensurate with fiscal responsibilities at sub-national levels. But such fiscal deficiency is best addressed through tax decentralization or tax base sharing programs. Providing grants for civil service wages create perverse incentives for inflating the payrolls. Other countries like Brazil have introduced fiscal responsibility legislation to cap the wage expenditures at all orders of government so that government

agencies have incentive to deliver services rather than work as employment creation agencies.

#### *Grants for Rural Tax Reform*

This transfer is intended to deal with fiscal gap for rural governments arising from the elimination of rural taxes and charges in 2000. Again such transfer can only be a stop gap transitory measure and not a long term solution to problems of rural public finance. A long term solution requires an examination of options to reassign taxing and spending responsibilities and/or to institute output based transfers.

#### *Special Grant for Minority Regions*

Preserving diversity of cultures is an important goal of the Chinese government. Provinces inhabited with ethnic minorities receive an ad hoc grant equal to a base amount of 1 billion yuan in 2000 with a yearly growth rate of central VAT revenue and the rebate of the 80 percent of the central increased VAT collection in the minority provinces. While the rationale of this transfer is easy to justify, the specific design of a small ad hoc grant needs re-examination.

#### *Prior 1994 Subsidies*

These are subsidies equivalent to fiscal gap experienced by some provinces in 1993. They have been sustained for more than a decade. These subsidies can no longer be justified.

#### *Other Ad Hoc Transfers*

China has more than 200 additional transfers from line agencies. There is not enough information available on these programs to make an informed comment.

## 6. Principal Issues with the Existing System

The China's fiscal transfer system is remarkable for transferring large sums of money in an objective manner to sub-national governments. This has enabled provincial-local government to deliver quantity and quality of public services better than most developing and emerging market economies. Yet the system has a number of obvious limitations.

1). *Complex and opaque system.* The equalization system is overly complex and there are large number of transfer programs designed in an ad hoc manner as short term palliatives to deal with emerging issues/crisis but allowed to continue in perpetuity without any serious review. The system is opaque and hardly a handful of experts have knowledge of all programs and their underlying allocation basis.

2). *Piecemeal approach to gap filling.* The vertical fiscal gaps created by the existing assignments at provincial and sub-provincial levels are quite large (see Table 6) and a large number of transfer programs are implemented to deal with this gap. These programs gives the appearance of fiscal dentistry as multitude of programs such as the tax by tax sharing, tax rebates, transfer for increasing wage expenditure of public employees, the transfer for rural tax-for-fee reform, the transfer for abandoning agriculture tax etc, are designed to fill fiscal gaps (cavities) partially.

**Table 6 Vertical Fiscal Gap in China: 2003**

<i>Governmental order</i>	<i>Share of Revenues</i>	<i>Share of Expenditures</i>	<i>Fiscal Surplus (Gap)</i>
Central	71.0	30.1	40.9
Provincial	5.7	18.5	(12.8)
Subprovincial	23.3	51.4	(28.1)
All orders	100.0	100.0	0.0

Source: Authors' calculations based upon unpublished data from the Ministry of Finance, China.

3). *Lack of Central Coordination and Transparency.* Due to China's specific feature of bottom-up approving and consolidating budgets, the specific amount of transfers is unknown until the central budget is approved. Consequently, sub-national budgets are not able to reasonably estimate intergovernmental transfers until the central budget execution starts. For example, a 2003 audit report from the National Audit Bureau found that only 22.5 percent of total intergovernmental subsidies from the central government got reported in the provincial accounts in 17 provinces audited. The story is further complicated by having a large number of agencies making almost independent determination of their grant programs without formal centralized review and coordination.

4). *Lack of Regulatory Framework for Intergovernmental Transfer System.* All transfer programs in China are instituted by executive order and do not require formal legislative approval by the National People's Congress. Further all programs lack a sunset clause and review requirements for renewal. This informality breeds incentives for transfer programs to be introduced in a "putting the fire out" fashion" i.e. to institute grant programs with emerging problems without ensuing how various pieces of the puzzle fit together.

5). *Lack of consistency of design with objectives.* Almost all programs fail to provide an incentive and accountability framework to provide reasonable assurance of achievement of objectives. The equalization program is state of the art in its technology but has no clear objectives and no standard and a variable ad hoc pool. There is no assurance of dealing with fiscal disparities according to a consensus standard.

6). *Focus on input controls.* All specific purpose programs emphasize input controls with no accountability for results. There is not a single example of an output based transfer being practiced. There are no transfers to assure national minimum standards of basic services across the nation.

7). *Lack of Consistency of Management paradigm with China's modern role.* The programs perpetuate a public management paradigm that is out of step with the role of China as a world leader in a globalized and localized world.

8). *One size fits all approach in provincial-local transfers.* Provincial-local transfers use the same allocation criteria as the central transfers. These criteria do not discriminate among local governments by type of local government, by population size class or urban/rural character of their services. This contributes to bottlenecks in delivery of rural services due to inadequate financing.

## **7. Pathways to Reform**

In presenting pathways to reform, we are primarily guided by economic rationale, principles of grant design and lessons from practices that were enunciated in section 4 and the principal issues with China's fiscal system identified in sections 5 and 6. The following represents one possible package of policy reform options to deal with the principal issues.

*Tax base sharing or tax decentralization options to deal with the fiscal gap.* One possible option is to discontinue tax by tax sharing for PIT and EIT and allow supplementary variable flat rate charges by provincial-local governments. In addition, provincial-local governments may be given flexibility to set own tax rates within a defined band (range). It is also important to make EIT, a source based tax and have income attribution rules to attribute income to various locations based upon value added, employment and sales etc. This will allow western provinces to claw back additional enterprise income tax revenues. In addition, it will discourage wasteful inter-jurisdictional tax competition. The proposed measures have the potential to reduce fiscal gap while enhancing accountability to local residents.

*Establish a legal framework and designate a coordinating ministry.* Industrial countries and a growing number of developing countries require grant programs to be established through enabling umbrella legislation (fiscal arrangements act) and implementing

regulations and designate a coordinating body usually the Ministry of Finance. China may consider instituting a legislative framework for major grant programs and designating the State Council or the Ministry of Finance to play a coordinating role. In addition, a fiscal arrangements committee comprising the Centre, provinces and local government chaired by the central Finance Minister, may be appointed to act as the primary initiating and deliberative body on central transfers.

*Establish a Framework for Fiscal Transparency, Responsibility and Accountability.*

The Central Government in China in the foreseeable future would remain a dominant source of financing subnational services especially in the Western regions and rural services for the country as a whole. Over time, China has afforded ever expanding autonomy to local governments. Under such an environment, it is important to establish a national framework for fiscal transparency, responsibility and accountability that is binding on all orders of government, to forestall future fiscal risks. This framework should specify principles and rules for fiscal prudence and fiscal discipline, framework for responsible credit market access, framework for fiscal insolvency for local governments, transparency and access to information by all. Recent experiences of Brazil and South Africa with such legislation may be instructive for China.

*Rationalize and simplify the fiscal equalization program.* This can be done by introducing an explicit standard of equalization e.g. national average standard for fiscal capacity or a fraction of this standard. This standard should determine both the pool and the allocation. Simplify the representative tax system and have fiscal capacity calculations done for 8 bases: only VAT, PIT and EIT, Business Tax, Urban maintenance and construction tax, housing property tax, vehicles taxes and all other sundry taxes combined. User charges should be excluded from these calculations. Discontinue the representative expenditure system (RES) for fiscal need calculations and instead use per capita (per service population) output based transfers for national merit goods as discussed below.

*Institute National Minimum Standards Grants.* This can be done by introducing output based fiscal transfers to achieve national minimum standards in merit goods such as



education, health, infrastructure etc. These transfers could be based on relevant service population (see education example in Box 1). They must also recognize a larger role of the central government in financing rural services in view of the inadequate potential for raising adequate own source revenues by rural areas.

***Box 1. An example of a performance oriented grant: education grant to set minimum standards, while encouraging competition and innovation***

Allocation basis among local governments: school age population.

Distribution to providers: equal per pupil to both government and private schools.

Conditions: universal access to primary and secondary education regardless of parents' income; improvements in achievement scores; no condition on the use of grant funds.

Penalties for non-compliance with standards: public censure, reduction of grant funds.

Incentives for cost efficiency: retention of savings.

Source: Shah (2002)

*Provincial-local transfers must recognize the urban/rural, size class of local governments.* General purpose transfers to local governments require special consideration as local governments vary in population, size, area served and the type of services offered e.g. urban versus rural. In view of this, it would be advisable to classify local governments by population size, municipality type, and urban/rural distinction and have a separate formula for each class and type of municipalities. It is also important to give special consideration to financing of rural services.

*Introduce capital transfers and responsible access to borrowing to deal with infrastructure deficiencies.* To deal with infrastructure deficiencies, a varying blend of capital grant finance and responsible access to borrowing may be needed in different provinces. The central government may consider providing local governments with assistance on project design and evaluation and credit market access.

## References:

- Budgeting Committee, National People's Congress. 2002. *Discussion on Fiscal Transfers by Experts home and abroad (Zhongwai Zhuanjia Lun Caizhen Zhuanyizhifu)*. Beijing: China Financial and Economic Publishing House.
- Li, Junsheng. 2002. "Methods to Realize Public Service Equalization." *Zhongwai Zhuanjia Lun Caizheng Zhuanyi Zhifu (A Discussion of China and Foreign Experts on Fiscal Transfer System)*.
- National Auditing office. 2003. Audit Report on Central Budget and Other Fiscal Revenue and Expenditure.
- Qiao, Baoyun and Anwar Shah (2006). Local Government Organization and Finance in China. In Anwar Shah, editor, *Local Governance in Developing Countries*. Washington, DC: World Bank
- Shah, Anwar (2005). A Framework for Evaluating Alternate Institutional Arrangements for Fiscal Equalization Transfers. Policy Research Working Paper 3785, World Bank, Washington, DC
- Shah, Anwar (2004). Fiscal Decentralization in Developing and Transition Economies. Progress, Problems and the Promise. Policy Research Working Paper No. 3282, World Bank, Washington, DC.
- Shah, Anwar (2003). Intergovernmental Fiscal Arrangements - Lessons from International Experiences. World Bank, Washington, DC.
- Shah (2002). Fiscal Decentralization in Developing and Transition Economies. In Raoul Blindenbacher and Arnold Koller, editors, *Federalism in a Changing World – Learning from Each Other*. McGill-Queen's University Press, Montreal and Kingston, Canada.
- Shah, Anwar (1998). Balance, Accountability and Responsiveness - Lessons about Decentralization. Policy Research Working Paper 2021, World Bank, Washington, DC.
- Shah, Anwar (1996). "A Fiscal Need Approach to Equalization," *Canadian Public Policy*, 1996, 22 (2): 99-115.

- Shah, Anwar (1994). *The Reform of Intergovernmental Fiscal Relations in Developing and Emerging Market Economies*. Washington, DC: World Bank
- Shah, Anwar, Zia Qureshi, Amaresh Bagchi, Brian Binder, and Heng-fu Zou. 1994. "Intergovernmental Fiscal Relations in Indonesia: Issues and Reform Options." *Discussion Paper 239*. World Bank: Washington, D.C.
- Tsui, Kai-yuen. 2005. "Local Tax System, Intergovernmental Transfers and China's Local Fiscal Disparities." *Journal of Comparative Economics*, 33, pp. 173-96.
- Zhang, Zhihua, and Jorge Martinez-Vazquez. 2003. "The System of Equalization Transfers in China." Working Paper 03-12. Andrew Young School of Policy Studies. Georgia State University.